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PROGRESS

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PREFACE



Canadians face a great challenge!

Some hundreds of thousands of families in our rural areas have not yet succeeded in adapting themselves to the demands of modern life. Their incomes have become lower and lower in comparison with the incomes of other Canadians, both rural and urban. Some are trapped in regions where the natural resources are too poor to provide decent incomes. Some are trapped by lack of basic education. Some are trapped by fear of the unknown — the poorly-understood, dog-eat-dog world of urban industrialism. Some are trapped by love of the land and others by ill-health. The fact that these people remain poor in our rich society casts a grave reflection on our ability to plan for change — to provide opportunities for all or most of our citizens.

One could talk in much the same way about the natural resources: the Canadian lands that are not producing what they should; the waters that are ill-used or unused; the lands that are being allowed to erode; the great opportunities for productive enterprise that are being neglected.

I have no doubt that through the Agricultural and Rural Development Act (ARDA) we can, and must, find solutions to all these problems.

The basic objective of ARDA is to increase rural income and employment opportunities — not by relief measures and government subsidies and give aways, but by improving the management and use of natural resources, and by assisting low-income people either to utilize the resources more profitably or to seek alternative opportunities in the many other fields that exist in our dynamic society.

ARDA is a federal-provincial program. The federal government shares the cost of projects that are planned and carried out by provincial governments. The federal government contributes only if these projects are in line with the basic ARDA objectives and provides technical assistance and helps with planning where any province desires such assistance.

As everyone knows, however, "between the saying and the doing lies the breadth of the ocean". The ARDA program, if it is to be successful, must encourage the rural poor to seek change: it must persuade the rural people who are not poor to help in advancing change: it must have an effect on the decisions of many hundreds of municipal governments: and the ARDA program must mesh effectively with the programs of several hundred other agencies of ten provincial governments and the federal government.

Between 1965 and 1970, the federal government will contribute \$125 million to help pay for ARDA projects carried out by the provinces. In addition, the \$50 million Special Fund for Rural Economic Development will be used, where the provinces request it, to carry out major development projects in regions that are economically backward.

This positive ARDA program, therefore, furnishes the legislative and economic tools to take advantage of opportunities which have hitherto been neglected. But the challenge remains. We must now show that we are prepared to use these tools wisely, and with imagination, for the benefit of rural areas throughout the country as a whole.

Manne Jan

Maurice Sauvé, Minister of Forestry and Rural Development.

FOREWORD

The broad scope of rural development policy in our country requires the continuing support of all levels of public administration in order to achieve the ultimate goal established by the ARDA legislation — improved resource use and rural income.

While a high degree of co-operation and understanding has been attained between federal and provincial governments in implementing this program, it is important that this understanding be shared by as large a number of the public as possible. In fact, without their active support the future of our rural development policy could be seriously impaired and with it the expanded opportunities which may be made available to hundreds of thousands of rural families. People in rural areas must understand better and learn to participate more actively in the ARDA program. Furthermore, they must be ready to make their own decisions and be to a great extent the masters of their own future.

This publication gives a general account of what has been achieved through ARDA legislation under the first General Agreement which terminated on March 31, 1965. Several typical projects have been chosen by each province, and by reading about these the reader may gain some insight into the objectives and methods of our rural development policy in the early stage of development. It is our hope that what appears in this report will serve as an example to those in rural areas who wish to join in this partnership in progress.

A. T. DAVIDSON

Assistant Deputy Minister (Rural Development)

June 1966

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INTRODUCTION

The Rural Problem

Development of opportunities for increasing the income-earning ability of rural people is a central concern of the ARDA program. Over the past twenty years Canadian farms have become divided increasingly into two distinct groups — those which are mechanized, progressive concerns operated according to business principles, and those which haven't made the grade in mechanization and management. The real income of the "lower half" of Canadian farmers has dropped, to the point where about 175,000 (out of the 470,000 total) live in conditions of poverty, near-poverty or general insecurity, with gross farm sales of less than \$2,500 a year.

In addition, nearly 300,000 rural non-farm families have an income of less than \$3,000 a year, and about 25,000 heads of Indian families are in this low-income group.

These figures can be misleading, of course. It is possible for a rural family to live well enough, according to modest standards, on \$3,000 or less, so one might say, from this viewpoint, that a rural person with such a low income is not a problem that our society as a whole should be concerned about. But from another viewpoint this level of rural income is a pressing — indeed a critical — social and economic problem. A quarter to a half of the rural people in some regions are at this income level, and in such regions it is likely that good roads, hospitals, schools and all the things that help make rural life desirable and productive are lacking or are of poor quality. Without these things, which the economists call "social capital", no region can offer its citizens — particularly its children — opportunity for a productive and satisfying life. Poverty goes from generation to generation. The Canadian economy, and the society as a whole, suffers. Many individuals are frustrated and become apathetic, and many who try to break out of the vicious circle are themselves broken in the attempt. Society as a whole loses the great contribution they might make.

Something must be done to improve opportunity in rural areas and for rural people, and emphasis on subsidies, relief, and the like must be avoided, for they can be self-defeating. There must be programs to improve the use of natural resources and the capability of rural people, and to stimulate economic activity. Rural people must be assisted to grasp the immense and exciting possibilities for production and for meaningful lives in our modern society. They must be assured the opportunity to realize all the advantages of the mainstream of Canadian life. ARDA is one of the broadest pieces of legislation in Canada, and it is aimed at achieving these ends.

There are many government programs in Canada aimed at: improving the management and use of natural resources, stimulating the economy of Canadian regions, and improving social conditions. These are necessary and useful programs.

But ARDA is different. ARDA is comprehensive enough to permit a very broad program for the development of regions-in-need like the Manitoba Interlake, the Gaspé, the New Brunswick North Shore, and others. ARDA is not a welfare or make-work program; it is dedicated to the creation of opportunity in rural areas. If the natural resources of an area are not sufficient to allow the development of opportunity for all citizens, then ARDA is geared to retraining and reestablishment programs which enable people to choose as alternatives a change of occupation or a move to an area where better opportunities may exist.

In brief, ARDA is a federal-provincial program of rural, social and economic development, and of resource development and adjustment. The provinces initiate plans for projects to meet the needs of rural areas and people, and the federal government shares the cost of such projects. The provinces themselves conduct and administer nearly all ARDA projects. The federal government may, on its own, initiate and carry out research which it considers necessary for the sound development of the ARDA program. The provinces can also carry out research projects, with the federal government sharing the cost.

What ARDA means

ARDA stands for the "Agricultural and Rural Development Act". This is federal legislation, assented to on June 22, 1961, after being introduced in the House of Commons by the Minister of Agriculture, and adopted unanimously. Most of the provinces have also passed ARDA legislation. ARDA is designed to improve the economic and social development of Canada's rural areas.

What ARDA may do

Basically, ARDA permits the Government of Canada to do two things:

 Enter into agreement with any province to jointly undertake three types of projects. These projects may be for rural soil and water conservation, alternative land use, or rural development. The federal government may share the cost of such projects with the province, but the projects are carried out by the province.

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2. Initiate research and investigation related to rural economic and social conditions and to the use and development of natural resources, or to share the cost of this kind of provincial research.

The Minister of Forestry and Rural Development is now responsible for the administration of ARDA at the federal level.

In the provinces, responsibility for the ARDA program falls under the jurisdiction of a provincial department — usually the Department of Agriculture — although a number of departments are involved in operating the program.

The federal-provincial ARDA Agreements

By the late autumn of 1962 the federal government had signed a General ARDA Agreement with each province, which laid out in some detail the types of project which could be initiated under the ARDA program, and the administrative procedure for carrying them out.

The first federal-provincial General Agreement covered the period up to March 31, 1965. This was considered a pilot period, during which much would be learned about the rural problem and the best ways for solving it.

The second ARDA Agreement was signed between the federal government and each provincial government in the spring of 1965. It will remain in effect until March 31, 1970.

Under the new ARDA Agreement, the federal government will contribute up to \$125,000,000 over a five-year period, and will establish a \$50,000,000 special Fund for Rural Economic Development to assist with special projects in rural areas where comprehensive development is required. This amount of money, matched approximately equally by provincial funds, can be spent as follows.

Research may be carried out as a basis for projects and programs; detailed plans for regional development may be worked out; there may be studies of the effects of ARDA programs and the like.

Land use and farm adjustment programs can be developed to accomplish many purposes. These include the following: helping to increase the size of farms which are too small to be economic units; acquiring poor farm land and putting it to use for pasture and forage production, recreation, wildlife management, forests and woodlots; financial and technical assistance, and advisory services for farm enlargement and woodlot development, and the like.

Rehabilitation programs can assist with rehabilitating or reestablishing certain people in rural areas who may need assistance in

finding new opportunity, including allowances while training; transportation and living costs; assistance with resettlement where this seems sound; and special assistance to rural people 55 or more years old, who decide to sell their low-income farm.

Rural development programs can be assisted by training and providing rural development field men, encouraging and assisting in the development of community leadership, and the involvement of local people in planning.

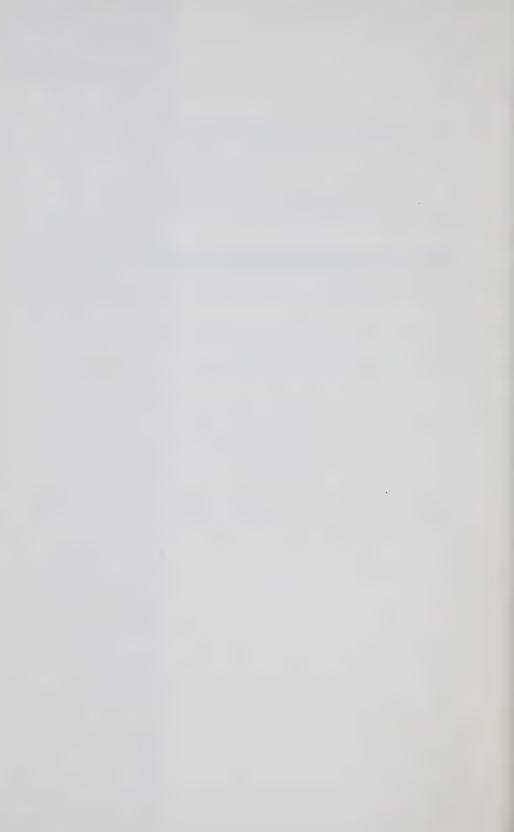
A wide variety of economic and social development programs can be carried out in Rural Development Areas and Special Rural Development Areas. In some areas other government programs in addition to ARDA will be focused on the problems of low-income and lack of opportunity.

Since the ARDA program cannot function well without the understanding and participation of the people — rural and urban — who are affected by it, programs of public information are essential. There is provision for suitable public information programs in the new ARDA Agreement.

Soil and water conservation, primarily to improve agriculture, can include projects for the development of the water resources of whole watersheds; projects for farm and community water supplies; land conservation and improvement including drainage; and land development on farms where the lands have good potential for agriculture.

These are the main things that can be done under the new federal-provincial ARDA Agreement. (Copies of this Agreement are available on request from each provincial agency responsible for ARDA or from the federal Department of Forestry and Rural Development.)







Newfoundland

Towards a Modern Fishery

Modern international competition has driven many of Newfoundland's inshore fishermen into a tight economic corner. New fish harvesting and processing techniques are needed. This means capital for new equipment, and training in the skills to use it. These could help them to extend the range and duration of their fishing activities.

Newfoundland's Straight Shore is located on the northeastern side of the province, between Ladle Cove and Valleyfield. For centuries the main economic activity has been fishing — something the Straight Shore men learn from childhood, but the techniques they learn — long-lining and inshore cod-trapping — are out of date. These fishermen cannot compete against modern methods.

The Straight Shore Fisheries' Program, financed by ARDA, is providing an answer to their needs. Its broad objective is to raise the income of fishermen through increased production and improvement of quality.

The problems were these: old-fashioned methods of catching fish didn't provide big enough yields; using these methods, the season was too short; too often fish arriving at Newfoundland's big processing plants had been out of the water too long — with spoilage and waste a result. If the men could just achieve more efficient harvesting methods, and could get their catches to the processing plants in better condition, they'd make bigger profits.

Under a plan worked out by government staffs, several expert fishermen were hired to teach the local men new methods, such as gillnetting — not previously used on the Straight Shore. The gillnets were provided through ARDA on a "use now — pay later" plan.

Improvements were made to community "stages" — buildings for cleaning fresh-caught fish. In these stages fishermen split, wash and lightly salt their own fish with guidance from experienced men. The fish were purchased at the stages and shipped directly to factories for final processing. Later, a final payment based on the net sale value of the fish was made to the fishermen.

So far, the project shows encouraging signs. The total catch in 1964 (the first year of the experiment) showed an increase of 40 per cent over the previous year — a minimum of \$50,000 increased income for the 420 fishermen involved. The fishing season has been extended by

nearly two months since gill-nets enable the men to get out earlier in the year.

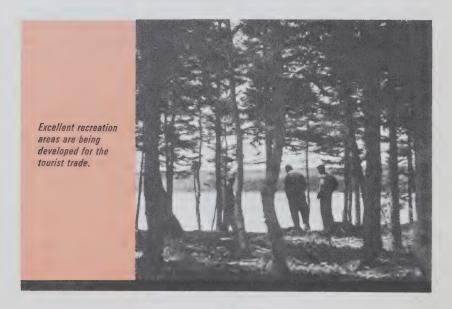
As the project continues more plans are being made. Now the thinking extends to improving local storage facilities and to building a mobile freezer boat so that the fish can be cooled as soon as they are caught. Maybe more kinds of fish can be used — species the Straight Shore men never bothered with before. And more nets are needed — right now the men only have two each and they could handle five. Now, they'd like to build a boat-yard where the men could learn to build themselves modern boats suited to the new netting techniques.

They probably will, too.

Investigating New Sources of Income

Rural residents in Newfoundland usually depend more on the sea for their income than on the land. Anything that can boost this income is important if living standards are to be raised. Research — marine research — takes on great significance since it can provide the keys to new possibilities for developing marine resources, with resultant benefits to the Newfoundlanders dependent on these resources.

An ARDA project begun in the summer of 1965 is an investigation of the marine resources of the Port-au-Port area on the west coast of Newfoundland. Biologists, a geologist, and other technical personnel are



engaged in the study of local marine flora, fauna and geological formations. The results of their work may well lead to new possibilities for economic development of the resources of the sea.

Surveys of clam, scallop and lobster areas are being made. Maps are being prepared which will guide both fishermen and lawmakers towards improved harvesting of these marine creatures — for which a steady and profitable market already exists. It is also hoped that new commercial uses for seaweed can be developed — and Newfoundland has no shortage of seaweed.

Attracting More Tourists

A few years ago, any Mainlander who suggested touring Newfoundland by car would have been laughed right off the Island. For one thing, there were scarcely any roads. For another, there weren't many people set up to cater to that stranger — The Tourist.



But times change and today Newfoundlanders are really considering the possibilities of developing a tourist industry.— and finding it to their liking. An ever-enlarging network of new roads all over the province, coupled with the increasingly mobile and curious North American tourist, could well add up to a profitable new enterprise for many a Newfoundland rural resident.

Accordingly, Newfoundland commissioned an ARDA project which produced a report entitled "Recreation and Amenity Resource Study". This report indicated that the province does indeed have many

of the attractions essential to the development of a tourist industry. First of all, the province has scores of natural beauty spots. Secondly, tourists seek many of the things which Newfoundlanders have enjoyed for years — hunting, fishing, fine scenery, talking to friendly people, camping and other similar activities.

In line with the recommendations of the report, a start has been made to provide the province with a chain of campsites, parks and picnic areas. Natural beauty spots are to be developed, as are means of access to them, and they will be brought to the attention of the travelling public.

One of these attractive locations is Middle Brook Falls, in the Bonavista North area. Local unemployment in this area has reached serious proportions. Middle Brook Falls is one of the most picturesque water falls in the whole of Newfoundland. Properly developed and supervised, the area could be an outstanding tourist attraction and a highly profitable one. A local group has created a development plan calling for an access road, lunch tables, playgrounds, toilet facilities, fireplaces, and grass areas for picnicking. They hope to eventually add rock gardens.

The development works begun this year under ARDA provide immediate direct benefits, and residents of the area are looking forward to the long-range benefits. These could be considerable. The development of a tourist industry cannot help but provide many benefits for Newfoundlanders.

With the development of this new industry, ARDA will be raising rural living standards in the many parts of the province which are sure to become tourist-oriented.

An Opportunity for Agriculture

Agriculture in Newfoundland is hard going because of several factors, not the least of which is the climate. The growing season is short. Producing areas are in pockets of land scattered over the province, so the producer faces difficult, high cost marketing conditions.

Consumers can easily obtain farm produce imported from mainland Canada and the United States — commodities produced and marketed under the most modern conditions. Naturally, the Newfoundland consumer prefers the mainland products and will continue to prefer them until Newfoundland produce is as cheap and the supply is as dependable.

The income of the Newfoundlander and of the province as a whole

is affected by this situation. The problem merited investigation under the ARDA program.

In 1964, a report entitled "Demand for Agricultural Products in Newfoundland" was prepared under ARDA. This report drew together many facts and conclusions not previously available. The research showed that Newfoundland production of certain commodities failed to meet the demand.

Clearly, if local farmers can meet the demand for these commodities they stand to make more money. An opportunity exists, but it is not being grasped. Why not?

This first study gave rise to other studies which are now in progress. One is to learn how to achieve orderly marketing of agricultural products. What facilities are necessary before production can be increased? Such factors as storage, merchandising, grading, processing, freezing, and packaging are being examined.

Another project will put the findings and recommendations of the second study to practical use. A number of specific development projects will be undertaken in central and west Newfoundland. This part of the program will probably go on for several years.

The long-range goals are clear — to provide new opportunities for increased farm production to meet existing market demands. Newfoundland farmers will be in a position to improve their standard of living by employing precise market knowledge and fresh approaches.









Developing the Blueberry Industry

A good blueberry area can return up to \$300 an acre from land which is unsuited to any other kind of agricultural activity. In many rural areas with submarginal farm land, the harvesting and marketing of wild blueberries is seen as an activity with a real potential

Blueberry bushes will grow quickly and without much attention. About all that is required in some areas is to burn off the area every three years in order to control undesirable growth and allow the blueberry bushes to grow up again on clean terrain. Spraying will also be necessary in many areas.

At the present time there are two pilot blueberry projects underway in Prince Edward Island. One, located at Goose River, will put about 600 acres of low-production farmland into blueberries. The other, in West Prince, will use some 300 acres of similar land.

The people of these two regions are mostly farming and fishing families. They have formed co-operatives to manage and develop blueberry land. Each group consists of about twenty rural families, and each could get several hundred dollars a year additional income if all the plans materialize. Lots will be allocated to the co-operative members who will maintain their own plots and do their own picking. The packaging and marketing of the crop is under the direction of the co-operative, which will deduct management costs and development costs from gross sales.

The co-operatives originally approached ARDA asking for assistance to purchase and develop these 900 acres of submarginal land. In due course their requests were approved. The land was purchased and became provincial Crown land. The land is now being burned over and prepared for production.

People who live in the area are looking for a variety of returns for the investment. There will be employment for many local people for at least two weeks of the year during the harvest season. Burning and clearing will occupy about three weeks a year for those employed — one week each spring and two in the fall. And the sale of blueberries will provide supplementary income for the fishing and farming families concerned.

Local people initiated these projects and they have learned a great deal about self-help in the process. Once begun, it can be hoped

that this self-help process will continue — with increasing benefit to all concerned.

Water for Many Uses

Prince Edward Island, entirely surrounded by salt water, faces a peculiar water problem. In recent years a steady lowering of the Island's water table has been going on — resulting in a variety of problems.

As the water table drops, wells on the Island are in danger of contamination by salt water seepage. This creates a shortage of fresh water not only for rural families but for their livestock as well. Fresh water is also vital to any program of irrigation.

For these reasons, provincial authorities several years ago embarked on a far-reaching program of water conservation. A network of freshwater ponds is being created all over the Island. Financing of this work is, to a large extent, now arranged under the federal-provincial ARDA program. Suitable sites are chosen and dams are erected on streams. These dams create pond areas which hold reserves of fresh water for times of need.

Probably 75 per cent of the rural population of the Island benefits from this dam program. In 1965, a drought year, the benefits of water conservation were very apparent.

The program has resulted in the water table being replenished and the continued availability of fresh water is beneficial to all. Water is available for humans and livestock, for plants and for firefighting—the last being vital in rural areas. As a result, many farms are able to maintain operations where a shortage of water would have forced a shutdown.

These freshwater ponds add to the beauty of P.E.I.'s attractive landscape. A parallel program of wildlife and tourist expansion, complemented by the pond system, is providing other benefits.

More Profitable Land Use

Most of Prince Edward Island's lumber comes from the mainland since the Island's woodlots are largely depleted. To rectify this situation, the province, under ARDA, is purchasing quantities of marginal agricultural land for reforestation and forestry development. The program is expected to produce a variety of benefits — most of them long-range.

Land which at present is largely useless for agriculture can, over several decades, be brought into useful forest production. With better developed forests more wildlife habitat will be created. The present lack

of cover is a major factor in keeping wildlife populations down. This, in turn, will boost the Island's tourist program. The development of woodlots will go a long way towards preserving or improving ground-water levels and will add a good deal to the rural scene from an aesthetic point of view.

Nearly 2,300 acres have been purchased for conversion to woodlots. Most of the development will take place under the federal-provincial forestry agreements, but studies for wildlife improvement on these woodlots have been made under ARDA.



This governmental program will, it is hoped, lead the way for private action and initiative in developing better woodlot management among private owners.

Encouragement for Livestock Producers

Farmers in an area of Prince Edward Island known as Lot 16 were recently faced with a problem. They raised more cattle on their farms than they could feed. They had to make a decision. They could either cut back on production of cattle, which have a large potential market on the Island, or they could find a way to increase their capacity to feed and produce livestock. For the 50-odd livestock producers among the district's 200 farmers, this presented a real problem.

The only acceptable answer was to increase the amount of pasture land. Usually, farmers simply acquire the nearest land available and put it into production along with their original holdings. In this case, however, individual farmers were not able to do this since Lot 16 is peculiarly situated.

Only about 10 miles square, Lot 16 is surrounded on three sides by water, with a swamp on the fourth side. No expansion was possible. A committee of farmers was set up to examine this problem. Called the Lot 16 Grasslands Co-op Committee, the group represented about 50 farmers out of the 200 in the general area. Nine directors were elected to represent the whole area.

The directors knew that three separate tracts of good pastureland were available in the area, totalling some 1,400 acres. If the group could arrange the purchase of these tracts, they could operate community pastures which would put good pasture-land in easy reach of any interested farmer in the region.

Having determined the price of the land, this group turned to ARDA for assistance in carrying out their plan. In 1964, the three tracts were purchased jointly by the provincial and federal governments — the former paying one third, the latter two thirds. Development costs are shared equally. Development consists of clearing, seeding, fertilizing, fencing, and drilling of wells.

The first summer of operation (1965) saw 500 animals on the pastures. Fees are paid for each animal pastured. At present the community pastures are run by the local people on rotation, each man taking his turn at managing them. Eventually, the co-operative, which is still active with a five-man directorate, plans to hire a full-time pasture manager.

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Beef cattle are grazed on the community pasture; dairy animals are kept on the home farms. More farm-land is now available for crop production because less forage area is required on each farm. This enables local farmers to increase herd production and crop production, making farming a generally more attractive proposition in the area. Real interest in their own project continues at the local level and the pasture represents an excellent example of self-help aided by the finances of ARDA.









Nova Scotia

Improving Tourist Facilities

Money spent by campers and tourists is increasingly important to the economy. In Nova Scotia, statistics indicate that attendance at camp grounds and picnic areas averages 60,000 persons a year. Big jumps are expected to come in future years. About 40 per cent of the visitors come from the United States, about 30 per cent from other provinces, and the remainder from Nova Scotia itself.

In order to handle the increases in the tourist traffic which are forecast, the province is embarking on a project which will see new camp grounds and picnic areas developed in certain low-income rural areas.

The creation of recreational amenities will have many effects on the economy of the area where they are located — some short-term, some long-range. Employment is provided for those involved in the construction and maintenance of the project. An influx of visitors will boost the income of local businesses of all kinds. Scenic development raises local property values and the general appearance of the region.

The benefits come to marginal areas, so ARDA is able to assist with the financing of these projects. Sites are to be developed at Graves, Pinehurst (Lunenburg County), Beaver Mountain (Antigonish County), Battery Point (Richmond County), Ellenwood (Yarmouth County), Broad River (Queens County), Mira and Ben Eoin (Cape Breton County).

Joint Effort by Hog Producers

Nova Scotia farmers could produce nearly three times as many hogs as at present and still not fill the requirements of the Nova Scotia market.

To try to meet the demand, one co-operative decided to go into the pig nursery business. Founded in 1900 in the little village of Scotsburn, this co-operative now has about 600 members in the area, which includes part of Pictou County and North Colchester.

The co-operative bought 100 acres of land as a first step in establishing a nursery which could provide piglets for local farmers to raise. The potential was determined and the know-how was obtained. With the planning completed, the members of the co-operative raised most of the money needed for the venture — but in order to put the project into operation they applied for some ARDA financial assistance.

The co-operative manager states, "We would never have been able to go ahead with this project if ARDA hadn't provided the last bit of help we needed. Now, we're moving ahead fast with a new dry-sow barn which will take about 250 to 300 animals in an experiment to see if we can get closer control over breeding to increase our efficiency."

In 1964, the nursery produced about 3,500 piglets (with some losses through experimentation) from 190 to 250 mature sows. In two years, if the breeding herd can be built up to 500 sows, the co-operative hopes to have a production of seven to eight thousand piglets.

The piglets are sold to local farmers from a steadily widening area around Scotsburn. A Nova Scotia livestock fieldman working with the co-operative has stated: "Many of these farmers would surely be out of business if these pigs hadn't come along. With the added revenue from hog production many of our marginal farmers can now make a go of things where it would have been impossible before."

The program is seen as beneficial to the whole province as well as Pictou County. By providing the means of earning extra revenue, it has enabled a number of farmers to stay on the land instead of giving up and trying to find work in town. Published results of the nursery's experiments in grass-feeding of sows have already provided useful information for other pig breeders.

The co-operative hopes to develop an artificial insemination procedure for pigs sometime in the near future. At present artificial insemination is not used with pigs, but Scotsburn sees no reason why this isn't possible. If past determination is any yardstick, they'll succeed with this too.

Greater Benefit from Woodlots

A woodlot, properly developed, can be a continuous source of income for its owner. Many marginal farms in Nova Scotia have a considerable acreage under forest cover and many of these woodlots are not fully exploited at present. It is necessary to have some knowledge of the techniques of modern woodlot management before any real benefits can be derived from them.

To promote increased woodlot production, the Nova Scotia ARDA program is providing technical and financial assistance to help owners achieve the maximum return from their woodlots. There are two sides to the program: technical assistance and physical development assistance.

Technical assistance is given by five extension foresters who offer information and advice on such questions as: Where should the roads and trails be located? What are the best modern methods of planting, thinning, cutting, and estimating allowable annual cut? What are the best plans for fire prevention? There are approximately 10,000 woodlots in the province. Judging from the requests already being received for technical help, the extension program will have to be expanded.



Many owners are interested in developing their woodlots, but the initial cost of making roads and trails is prohibitive for small operators. However, after a plan for developing a woodlot is made, assistance is now available under ARDA to help owners construct access roads to and from their properties. The roads have a further value in providing easier access for fire control.

The long-range benefits of this program will be considerable. It will improve management of forest resources and will serve to increase the incomes of woodlot owners.

Many Nova Scotia farmers and other owners of rural property have good sugar maple trees on their land. But many don't use the best techniques for harvesting the sap and turning it into profitable maple syrup. To improve this situation, a pilot demonstration area has been set up on Crown land in Guysboro County. Here, owners of woodlots can be instructed in the manufacture of maple products.

The project was financed through ARDA. A woodlot was acquired, a demonstration area was set up, the necessary equipment was bought, suitable buildings were erected and firebreaks were built. In the spring of 1965 maple syrup production began. About twenty people are directly employed on the project each spring, and it will continue indefinitely.

More and more woodlot owners are taking advantage of this chance to study a money-making enterprise and put their resources to better use. Nova Scotia can expect an increase in production of maple products, and sugar-bush owners can look forward to new income.

Taming the Musquodoboit River

The Musquodoboit River is not long, as rivers go, but it courses the important farm-land of the Musquodoboit Valley and, under flood conditions, it can be quite unruly. Uncontrolled flooding of the river not only ruins crops and seeded areas, but prevents full use of adjacent potentially productive meadows. The normal river level has now risen to the point where drainage of these meadows is no longer possible.

Salmon and sea trout run in the Musquodoboit River and it has great potential for further development as a tourist attraction. The flooding problem has served to inhibit both the agricultural and the recreational development of the area.

Dredging of the main channel all along the river and dam construction on tributaries is planned. The river control program on this watershed is being done under the ARDA program of soil and water

conservation. The project will have a direct bearing on the economy of the rural areas along the river.

Complementing the direct river control works is a land drainage program planned by the farmers of the area. Some 5,700 acres of meadow or 'interval' land adjacent to the river will be improved and brought to full production. The recreational potential of the whole watershed area will also be enhanced by the development of recreation sites, and great improvement is expected in both trout and salmon fishing.

As water control in the Musquodoboit Valley proceeds, investigation of other local problems is moving ahead with local people themselves taking the initiative and taking part in the planning.

For example, an ARDA-sponsored study has recently been completed on the role of education in rural development. This study began as an attempt to pinpoint the reasons for local school dropouts. A survey was organized and conducted by about 250 local people under the direction of sociologists from St. Francis Xavier University and the Musquodoboit Rural Development Committee. This study has already reaped considerable benefit by showing the rural people that they can accomplish a great deal by working together. They now have a personal interest in it and local leaders say they are anxious to act on the new understanding drawn from the survey they helped to conduct.

This aroused local interest has led to a call for a truly comprehensive adult education program — one which will provide retraining in new skills for the many unemployed or underemployed people of the region. If the adults become interested in education, their influence at home will serve to keep many potential dropouts in school.

This local participation has given the people of the area a real understanding of the importance of planning and research in sensible economic development. Many local people hope that the river control program together with more extensive knowledge and understanding of local problems and needs, will be merely a start in organizing for community development on a wide front.









New Brunswick

Adapting to Industry

What happens when a modern industrial complex is set up in a distinctly rural area populated by thousands of residents accustomed to a subsistence type of existence? How do these people prepare for the changes such an event is sure to bring into their lives?

Bathurst-Belledune is located in the Restigouche-Gloucester-Northumberland Counties area of Northern New Brunswick, long a largely submarginal farming area. Announcement of plans to erect a new mining and smelting operation in the area brought with it a new hope for prosperity for local residents. They are now confronted with a myriad of problems.

This much was known: many people would be needed to construct and operate the new industry and many people in the region need work. However, many of these people do not have the training required before they could gain employment in a modern industry. They are, for the most part, fishermen and farmers earning a bare existence having a minimum of training and little exposure to new ideas or experiences. If they are to benefit from the possibilities brought by new industry they must be prepared in advance to take advantage of the new opportunities.

Through ARDA a complete investigation of the potentials of the area, the immediate and long-range problems of the people together with ideas for overcoming these problems, is being made by a "Task Force" of professionals. This Task Force is made up of men seconded from provincial and federal governments aided by private consultants.

In general their approach is this: to assess all the problems and possibilities of the area utilizing all the expert help and advice which can be mustered. When a plan for development has been devised, the Task Force will prepare a program of local participation to determine how local ARDA committees could assist in its implementation. Through these committees and by other means the local population will be made aware of the new job and income opportunities and will be helped to make informed decisions with regard to the selling of land, moving, retraining, rehousing, the setting up of new community services and so forth.

At present, the Task Force is examining or plans to examine the following aspects related to redevelopment of the area:

A definition of the labour requirements, both of the new industry and of the service industries which will develop.

- A mobility study (defined as the range of services which should be offered to the hard core of rural unemployed to enable them to qualify for new jobs as they become available).
- Housing and urban services requirements.
- Roads both existing and required.
- Education and vocational training of labour.
- 6 Conversion and redevelopment of hinterland areas.
- Modernization and expansion of forest industry.
- Training of technicians and expansion of fisheries industry.
- Development of manufacturing industries and industrial parks.
- Diversification, modernization and consolidation of farms.
- Creation of a tourist industry.
- Preparation of a local involvement program.

With planning beginning now, by completion of the new industry, the people of the region will be in a position to make adjustments from their former rural existence to that of an industrial working community, and take advantage of the improved possibilities in fishing, farming, tourism, or service industries.

Land for Grazing

As part of an effort to free cultivable land for farmers in New Brunswick five community pastures have been created under the ARDA program. The five, consisting of 4,062 acres in total, are located at Harvey Marsh (Albert County), Buckley Settlement (Kings County), Botsford (Westmorland County), Gilbert Island (Sunbury County), and McNairn (Kent County).

In most of these areas the land was formerly owned by absentee owners or by farmers who had ceased to actually farm it. By purchasing the land and developing it for use as community pasture, a two-fold purpose is achieved: first, some revenue is obtained by the former owner through the opportunity to sell his land, and secondly, more pasture-land is made available for the developing cattle and livestock producing areas — formerly limited by the available pasture.

One of the pastures (Harvey Marsh) is now leased by a Sub-Federation of Agriculture, two of them are leased by local organizations of farmers and the remaining two (McNairn and Botsford) are leased by local co-operatives.



ARDA funds have paid for acquisition of the land and for clearing, fencing and seeding of the pasture areas. Upwards of 1,550 head of cattle can now be provided for on these pastures.

Much of this land, fallen into neglect as it was, is now redeemed for productive use. A side benefit not to be overlooked is the value attached to keeping land in good condition. By investing in community pastures — several objectives are attained: good land is protected from encroaching scrub, the general appearance of the countryside is maintained, the former owners of the land are freed from a submarginal operation and, with a bit of capital from its sale, can seek new opportunities elsewhere, while the remaining farmers can take advantage of increased pasture-land without the necessity of heavy capital investment.

Conserving Soil and Water

In special areas of the province, ARDA-financed programs of soil and water conservation have been undertaken to promote the protection of land against erosion by water, and improve or maintain agricultural efficiency and productivity where a good potential for development exists but is limited by factors within the broad scope of soil and water conservation.

Generally, projects undertaken include improvement of poorly drained areas (by installing tile and open ditch systems); constructing farm ponds for stock watering, fire protection and irrigation; the development of more efficient units by providing access roads to all fields and managed woodlots.

Side Effects of a Major Dam

When the government of New Brunswick decided to build the Mactaquac Dam it decided at the same time to proceed with an integrated program for the rural area affected — a program designed to increase employment opportunities and to increase living standards for local residents. It was felt that an area undergoing the degree of change brought about by the building of a dam and the creation of a reservoir could be advantageously used as a testing centre or working model for the study of development techniques and adjustment mechanisms which could then be applied elsewhere in the province.

By midsummer of 1965, the various interim reports of the planning agency formed a comprehensive guide which set out plans for:

- land use
- the development of small woodlot holdings
- the development of wood-using industries
- the development of tourist and recreational facilities
- 6 the development of new communities
- an organization to carry out an integrated development program.

Like other parts of Canada, New Brunswick has been undergoing a major transition characterized by increased urbanization and industrialization, a decline in the farm population and a higher average age of farm operators, an increasing inability of rural communities to pay for such services as education and welfare, new demands for recreational land and facilities from urban residents, drastic changes in agricultural methods requiring more capital, larger units and better managerial ability, and a relative decline in rural incomes.

The construction of a dam and reservoir in the Mactaquac area is sure to accelerate these problems. Fortunately, there are development possibilities, but these must be acted on quickly with boldness and imagination.

Already, the researches carried on in the Mactaquac area have pointed the way for substantially increased development of woodlots, recommended creation of new wood-products facilities which would employ upwards of 250 people in new jobs, made suggestions for development of tourism which could result in the employment of 200 people and provide an annual payroll of \$700,000. In addition, the case for farm and woodlot consolidation has been clearly established. New thinking is being applied to old problems like water pollution, land use controls, development of whole new communities, training and retraining for jobs.

Since New Brunswick is committed to the Mactaquac dam and reservoir project, it has also undertaken to follow up this resource development with a broad approach to all the resultant possibilities and problems. ARDA is playing a significant role in financing and assisting with personnel in studying and planning for this development.









Quebec

Unique Approach to Rural Development

In former years, local leaders in the Lower St. Lawrence and Gaspé regions measured their success in terms of government subsidies and social assistance. Today, this attitude has been replaced by a more rational concept that seeks permanent solutions to regional economic problems. Thanks to the support of the population, the organizers of the planning program believe that it will be possible, within the next 10 years, to completely change the economy of the Lower St. Lawrence and Gaspé regions.

This new concept was born in 1956 through the Conseil d'orientation économique du Bas Saint-Laurent (COEB). The members of this council believed at the time, and with good reason, that no attempt should be made to resolve the problems of the area without first discovering their exact causes.

The studies and other activities of COEB dealt at first with the economic planning of the region. The studies that were undertaken include a demographic study of the region, a study of transportation problems, a general review of farming and the classification of soils. Several briefs dealing with regional problems were also submitted to various commissions of inquiry and other organizations.

The COEB membership represented every aspect of the life of the region, municipal and county councils, chambers of commerce, l'Union Catholique des Cultivateurs and the Junior chambers of commerce.

In the Gaspé region, meanwhile, the Fédération économique de la Gaspésie was performing a similar role to that of COEB — aided by the Chambre de Commerce de la Gaspésie. In 1963, the federation became the Conseil régional d'expansion économique de la Gaspésie et des Îles-de-la-Madeleine (CREEGIM).

These two voluntary groups did much to arouse interest in the problems of the Lower St. Lawrence and Gaspé regions. With the passing of the ARDA legislation, the door was opened to a broader and more intensive approach to regional economic planning. After numerous discussions with the Quebec government, the region was designated as an ARDA pilot development area.

At the request of the provincial government, COEB and CREEGIM agreed to form a corporation, which was named the Bureau d'Aménagement de l'Est du Québec (BAEQ). This corporation was asked to prepare a development plan for the whole of the area. The BAEQ board comprises 10 director-shareholders, five of whom are appointed by COEB and five by CREEGIM. The federal and provincial governments finance the work of BAEQ through ARDA.

Preparation of the master plan has been undertaken by the Planning Service of BAEQ. This service, which has a professional staff of 85, is making a comprehensive survey of the physical, economic and human resources within the pilot region and is trying to determine, with the help of the population, the best means of developing the region. As public involvement is an essential step in achieving the goals of this type of enterprise, a vast program of public participation was set up. This unique experiment is arousing great interest among many Canadians who are engaged in regional development.

Within only a few months, community leaders succeeded in establishing about 200 local committees, in which 4,000 people are participating. This "animation sociale" process has been supported by a weekly television program and a weekly newspaper, which inform the population on various aspects of the planning program and on recent decisions made by BAEQ. Also, a monthly newspaper was created for the small English-speaking population centred around Gaspé.

The result of all this has been tremendous interest among the people of the region in local problems and the work of BAEQ. During the winter of 1965, for example, 6,000 people participated in a primary education program for adults, which produced an 85 per cent pass rate. Both the number of participants and the excellent results have amazed provincial education officials.

Over 325,000 people live in the Lower St. Lawrence and Gaspé regions. Per capita income in the pilot area is \$702 annually; in the province as a whole the average is \$1,267. Of this \$702, 31 per cent comes from government welfare or other such payments, compared with about 12 per cent in the rest of the province. Also, 38 per cent of the labour force is directly employed in primary resource development — about double the provincial average — and the secondary industries employ proportionately fewer people than in other areas of the province or Canada. Furthermore, 35 per cent of the wage earners are unemployed for 6 months of the year.

Their income comes from several sources: manufacturing, welfare

and other payments, lumbering, mining, forest and wood products, tourism, dairying, fish processing and fishing.

It is too early to say what effect the BAEQ master plan will have. Although a preliminary plan was prepared and released to the public in 1965, the final plan was not presented jointly to the Governments of Canada and Quebec until the mid-summer of 1966.

Officials of BAEQ believe that what has taken place in the area will probably continue to grow and show results for years to come. The effects of "animation sociale" cannot and should not be measured in months, or even in years. Even if all the recommendations of the final master plan cannot be implemented immediately, the people of the region seem to be prepared to carry on themselves, making decisions and being to a great extent the masters of their own future.

A Gift of Nature: Blueberries

Blueberries grow wild on land which is usually unsuitable for any other kind of agricultural activity — peat soils, sandy terrain or marsh-land.

Harvesting blueberries can provide substantial cash returns to many rural areas — cash badly needed by low-income families. Blueberry production in Quebec — the home of the world's best berries, according to some connoisseurs — has fallen from 20 million pounds in 1940-50 to below three million pounds in recent years. Variations in



quality have harmed the market and this has resulted in a cutback in production.

In past years little attention has been paid to selection grading, and protection of the harvested fruit. Pickers had to dispose of their berries soon after they were harvested since few had any modern storage facilities. The entire crop came on the market at once and this tended to drive prices down. Damaged, spoiled and ungraded fruit was rejected by food inspectors outside the province, both in Canada and the United States. As a result a cash crop of great potential value was not exploited fully.

Under the ARDA program, Quebec is now experimenting with new processing and marketing methods to try to regain the lost market. The results of the work could lead to considerable additional income for many rural families.

Fifteen blueberry-growing areas are being established for harvesting by local syndicates on a lease basis. There may be more in the future. Development costs are paid by ARDA.

Each year a third of the land will be burned over and the remaining two-thirds will be used to grow berries. In this way the area can produce an annual crop. The land formerly produced a modest amount of timber or nothing at all. Families will have an opportunity to harvest the crop. This could mean an additional \$500 a year for any family that puts real effort into blueberry picking. For many, that \$500 can mean the difference between a decent standard of living and outright poverty.

Another project undertaken during the summer of 1965, is aimed at improving processing and marketing — badly needed to reorganize the industry.

Under the project, the 1965 crop was bought by the Syndicat de Producteurs de Bleuets de St-Eugène et de Ste-Jeanne d'Arc, located in Roberval County. This was predicted at around 500,000 pounds but later revised downwards because of an extremely dry summer.

As they were picked, the berries were rushed to Quebec City in specially designed low-cost unrefrigerated trucks, to see if this was a practical method. At Quebec they were processed at the Quebec Freezers Ltd. plant under a special contract, using new types of equipment. Throughout this period experts from the Quebec Department of Agriculture checked for quality deterioration. They kept track of such factors as temperature, length of time between picking and processing, and other related data.

The fresh, washed and graded berries were then released to the market — the fresh market, or into cold storage, or for freezing or puff-



drying. New packaging, bearing the name of the co-operative, is being tested for consumer acceptance. Care was taken that the crop conformed to the food regulations in every way.

Costs of the experiment are shared by the government of Quebec and the federal ARDA administration. Any profits on the operation are to be returned to the pickers as a bonus over and above the original purchase price.

Skiers Help a Small Village

St-Féréol, Quebec, is a tiny place. Not more than sixty families live there. The farms long ago petered out and today they yield only a few hundred dollars a year for their owners. The soil is poor, rocky and hilly, and growing nothing but brush. The forests are mostly third or

fourth growth and not worth cutting. There is not much opportunity for the men of St-Féréol.

But lately things have been looking up. Everybody is talking about "Le Projet du Mont Ste-Anne" — and the talk is good.

Mont Ste-Anne is the mountain which overlooks the little village and it's in the process of becoming the newest, highest and biggest ski development close to the heavily populated Quebec City region — twenty-five miles up-river. When the skiing gets going there will be many jobs for local people and lots of money being spent by the skiers in local business establishments. And during the development period there are good jobs for labour.

ARDA's role in all this has been a relatively small one — but one which played an important part in getting the project going.

The nearby town of Beaupré is sponsoring the ski development. A special committee of local people was formed a couple of years ago to look into the possibilities of developing Mont Ste-Anne. They decided to form a corporation and buy the whole mountain and a lot of abandoned marginal farm-land around its base. About four square miles of this land were needed and most of this they were unable to finance on their own. Since the project will obviously be of great economic benefit to the area, \$291,000 was shared equally by federal-provincial ARDA.

With the acquisition of the land the project was able to move rapidly ahead. Roads have been reopened into the property, parking areas have been cleared and base trails cut. By midsummer local workmen were constructing the bases for the gondola lift towers. Work on buildings was scheduled for late summer and it was hoped that skiing would begin by the winter.

The project is turning an area of neglected, marginal land into an economy booster for the whole region. With nearby Beaupré and its famous Ste-Anne Basilica drawing tourists from all over the world during the summer, and the new ski centre rounding out the slack winter period, business should be good all year round. That means jobs for people like the men of St-Féréol.

It is planned to hold the next Canadian Winter Games at Mont Ste-Anne.

Water Control on the Chaudière

As far back as anyone can remember, the Chaudière River in Beauce County has caused great damage each spring as ice jams pile up,

partially dam the river and cause flooding. This flooding affects the rich farmland bordering the river — and today few farmers will bother keeping the land in production since their investment can be wiped out so easily by a spring flood.

Besides damage to seeded areas, nearly every year flood-waters have caused extensive damage to buildings in towns and villages along the river, estimated at \$3,750,000 since 1910.

A third effect of flooding is the erosion of good soil — soil needed to keep farming productive enough so that people can enjoy a decent standard of living for their efforts.

ARDA projects have been put underway to control the river by building a system of dams up-river to regulate water coming into the Chaudière from its tributaries. Also, downstream sections are to be widened, and in many places the banks will be reinforced and the channel deepened.

This work is being planned with the aid of experimental models of the river which engineers are studying to determine the most effective sites for dams and other works. Aerial reconnaissance is used, as well as ground surveys.

When the project is completed, rural residents all along the river will benefit from the fact that their labour will no longer be wasted because of river floods. Many farmers will begin to cultivate the good land next to the river. This, in turn, will mean additional dollars and cents at the market-place.









Ontario

Regional Research in the Eastern Counties

In rural Ontario there are a number of regions which once supported a healthy agricultural economy but which can do so no longer. All told about 850,000 acres of Ontario farm land have gone out of production in the past couple of decades, mainly because the soils and topography on these farms are not suited to modern mechanized agriculture — not at present price levels anyway.

This situation poses problems both to individuals and to governments. What use should be made of the deserted land? How can the remaining farmers be helped to improve their operations? Can new industry and improved community organization breathe new economic life into such areas?

Research can answer some of the vital questions and provide guidelines for long-term policy. Studies are now being made in Eastern Ontario under the ARDA program. The area — 10,231 square miles comprising the counties of Renfrew, Lanark, Carleton, Frontenac, Leeds, Grenville, Dundas, Stormont, Glengarry, Prescott and Russell—is known to contain approximately one million acres of poorly drained soils. Great changes in the agricultural economy over the past 25 years have made much land in these areas uneconomic to farm.

Several local county committees on rural development have been established, and submissions have been made by several local agricultural organizations. The region was selected for pilot study under the Rural Areas Development Research Agreement of ARDA.

Agriculture, forestry, tourism, service industries, electric power generation, manufacturing and mining all contribute to the regional economy. All these activities are being examined to see where further development can be achieved. The rural economy is closely tied to urban industrial development.

The region has been looked at as a whole and many studies are being made to determine what new development should take place in the area.

Several action programs have already been started — notably withdrawing submarginal agricultural lands from farming and accelerating the planting of trees on abandoned farmland. As the region's resources are better understood, residents will be in a better position to plan their future. ARDA will continue to play a significant role in

enabling the people of the area to achieve decent income levels and a more satisfactory long-term future.

Making Land More Profitable

An important alternate land-use program is underway in Northern Ontario's Timiskaming and Cochrane Districts. It is designed to accomplish two ends. On the one hand there exists a large market for high-quality feeder cattle. On the other hand there are many abandoned or small low-income farming units in the area.

Ontario is trying to find an answer to this situation through a program of land consolidation for beef production. Briefly, the idea is this: gradually small farming units are being purchased as they come on the market and they will be turned into large ranch-type grazing units of 1,500 acres or more. Such a ranch may be operated either as a full-time economic enterprise, or may be part of the operation of a resident livestock farmer in the area who wishes to expand. This program appears to be one of the few ways to achieve sound agricultural development in this region.

Ten units are being prepared under ARDA as a pilot study with the federal and provincial governments sharing costs equally. The land is being acquired and the units are being developed by fencing and the like. The province will lease the enlarged farms and the lessee will be responsible for the payment of local municipal taxes and for maintenance and operating costs. After he has become established, he will be able to acquire full title to the property.

The total area is very extensive. About 16,500 acres of it has been selected as a test area.

This ARDA project should result in improved living standards, an increase in much-needed beef feeder cattle in northeastern Ontario, and utilization of abandoned land now reverting to scrub.

Converting Land to Other Uses

Changes in the farm economy of parts of south-central Ontario have resulted in significant decreases in income and employment opportunities. This is particularly true on the fringe of the Canadian Shield where most of the land is submarginal for agricultural use.

Recreation as a new income source is seen as an alternative in the face of decreasing agricultural activity. However, recreational development so far has been largely limited to areas within a weekend driving radius of urban centres. At further distances, developed areas have



attracted mainly holiday visitors and individuals interested in hunting and fishing.

Therefore, the province has set about reorganizing areas where the land has been classified by the Canada Land Inventory as submarginal for agricultural purposes. Multiple-use areas are being established in regions where rural economies have suffered a decline and where potential exists for more than one kind of development.

The uses which are likely to be most profitable are:

- the production of forest products,
- the development of extensive recreation areas for hunting and fishing,
- the provision of grazing areas such as community pastures for local residents on limited areas of higher potential.

Benefits to local people are in the form of:

- employment in forest improvement and harvesting operations and in reforestation,
- employment related to increases in recreational use,
- to a limited extent cattle ranching through the provision of good quality pasture.

The major benefits from the forestry programs are long-term. The revenues will come in only when the forest crops are harvested. But when forest development is taking place, cutting and work contracts are given to farmers adjacent to the forest areas, wherever possible. The extraction of mature timber, forest stand improvement, fencing and tree planting provide considerable local employment.

Part of the planning and decision-making for these alternative land-use projects is carried out by local people on ARDA committees. In Ontario these are directly connected with county councils.

The program supplements work of this kind which was already under way in the province prior to the ARDA agreements. Local municipalities formerly had to provide 50 per cent of the cost of the land acquisition program in their area, but under the ARDA program this share is reduced. The local organization now pays 25 per cent of the cost of submarginal land. The federal government and the government of Ontario share the remaining 75 per cent equally. In parts of rural southern Ontario where rural assessment is too low to pay even 25 per cent of the cost of this program, ARDA has provided all the funds to acquire non-agricultural lands.

At present, there are 20 such projects involving upwards of 250,000 acres of land — all of it taken out of submarginal agricultural production and put into forestry, recreation, wildlife and water conservation or combinations of these uses. Working through local county governments and river valley authorities, programs of land retirement are being expanded. Coupled with the various development programs, this land adjustment program will help to raise rural incomes by creating new opportunities.

Larger Farms for Better Living

Greater profits for farmers with small land holdings is the aim of Ontario's community pastures program.

In some of the rural areas of the province, farms are too small to carry enough cattle to make a worthwhile contribution to the farmer's standard of living. Supervised community pastures, which provide pasture at low cost, enable farmers to maintain larger herds and thus realize greater cash returns.

Several pastures have been established through ARDA assistance and are now in operation in Ontario. Three of them — Manitoulin, Victoria, and Timiskaming Community Pastures — are being used for the grazing of beef cattle. At the same time, a herd-improvement program using performance-tested bulls will eventually result in better herds — and that means money to farmers. The Leeds Community Pasture is being used largely for young dairy stock.

The land used to develop these community pastures was originally farm land, part of which had been abandoned and was reverting to scrub while the remainder still being farmed was not returning an adequate living to the owners. Given suitable development this abandoned land becomes useful for grazing purposes. The cost of purchase and development of such land has been shared equally by the federal and provincial governments. Initial purchase prices are usually low because of the low quality of the land or the encroachment of scrub vegetation.

When established, the pasture comes under the management of a community pasture board. These boards are made up of local men with knowledge of cattle raising. The board supervises the maintenance of the pasture, sets pasture rates and allocates grazing rights. The pastures are not exempted from municipal land taxes.

All expenses of the pasture, after initial development is complete, are expected to be met out of grazing revenues. The pasture

program is finding real acceptance and enthusiasm among Ontario's farmers who would otherwise have to make large capital investments to enlarge their farm area.

The outlook is for more ARDA community pastures, more participating farmers, and improvement in income for farm operators who participate.

Data on the Ontario program are as follows:

PASTURE	LOCATION	AREA	LIVESTOCK	FARMERS	(per head)
Victoria	near Hartley, in Victoria County	950 acres plus 1,500 being developed	270	30	\$16-22
Timiskaming	near Earlton in Timiska- ming County	640 acres	123	17	\$13-17
Leeds	near Delta in Leeds County	470 acres	83	10	\$10–15
Manitoulin	in the District of Manitoulin	2,400 acres	230	15	\$10–18







Manitoba

Green Light for Rural Development

There are three interlocking areas of emphasis required in rural development, namely: education and human development, associated resource adjustment, and optimum physical resource development. First and foremost, a good education system is required in primary schools, secondary schools, vocational training, adult education and in business resource development. Then the means must be found for people to use these educational services to improve their standards of living in the community. Governments can develop policies such as school building grants and consolidation, road building, Crown-land leasing, business credit, agricultural drainage, and make them available to the community. But the people must see good reasons to make use of these programs to meet their needs within the situation they face from day to day.

To achieve the goal of a comprehensive social and economic development program, it is necessary that Manitoba co-ordinate and utilize the relevant provincial, federal and joint federal-provincial programs. The costs of rural development which are associated with items such as schools, roads, health services and vocational training are carried out by the province through a great variety of provincial and federal-provincial arrangements. ARDA funds are used to supplement and expand programs, mainly in soil and water conservation, land-use adjustment and rural development co-ordination and research.

Rural development calls for the planned development of both physical and human resources of the rural community and requires the co-ordinated efforts of private enterprise and community organizations with assistance, where necessary, of all levels of government.

First, this definition implies broad programs involving development of all resources in the area that can be utilized — both physical and human. The second part implies that rural development must be initiated and carried through by the citizens of the area.

Manitoba has meshed the ARDA possibilities with more comprehensive programs which are being planned and implemented by several departments under the co-ordinating guidance of the Manitoba Development Authority. At many levels of Manitoba development planning, ARDA complements or supplements the provincial programs by providing additional sources of money needed to carry out research or action projects.

The Interlake Rural Development Area of Manitoba has been designated to provide for a comprehensive rural development program under the provisions of the federal-provincial ARDA agreement. In this context, planning, research and motivation in this area have been financed through joint Manitoba and federal funds. Several action projects have already been carried out by local groups and provincial agency co-operation. Today the area is gradually working towards solutions of bigger and bigger problems. Many provincial and federal agencies are involved in this work — representatives of Departments of Agriculture and Conservation, Education, Industry and Commerce,



Mines and Natural Resources, Indian Affairs and others — all play their parts in the comprehensive regional planning and action.

In the Interlake area, the inventory of resources has included a series of social, economic and physical studies — undertaken with attention to local involvement of people (see next project description) so that the information obtained is pertinent to problems and opportunities as seen by the Interlake people . . .

- A general economic survey was carried out to determine the areas of largest potential for economic development.
- A rehabilitation requirement study has provided guidelines to the educational and rehabilitation needs required in the Interlake.
- A population migration study has provided information on the amount of out-migration by community since 1941 and on sex, age and educational characteristics of the migrants and the adjustments made by non-migrants.
- The kinds of organizations that fishing people are affiliated with was investigated to provide information useful to carrying forward educational programs with fishermen.
- The scale of school dropouts and the reasons for this have been investigated.
- A study was undertaken to determine the probable response of local groups to various kinds of rural development programs.
- An analysis of ranching in the Interlake area was made to determine the scale of investments that might be made by beef producers for economic development of ranches in the region.
- The feasibility of major developments of industrial material such as silica sands and kaolin deposits was calculated.
- A program of discussion to develop priorities for action programs and reviewing results of research is being carried forward on a community basis through various educational and development personnel. Through these extension agents the involvement of local community leaders with resources specialists is promoted a vital aspect of the program.

The People Plan Their Future

Local appraisal and understanding of development opportunities are essential to the success of rural development projects. Manitoba has initiated a regional program to involve local leadership in the planning and implementation of local development. ARDA funds help to pay for the staff required to carry this involvement program through.

In the Interlake region, Manitoba's designated rural development area, this process is called "The Community Self-Survey" and the program complements the broader type regional surveys based on economics, resource utilization, sociology, and the like. Rural communities are being involved in a self-appraisal of their assets and liabilities, of potential for increasing income, and of increased use and productivity of resources aimed at facilitating rural development.

Techniques are being tested which will upgrade local leaders by providing practical in-service training facilities.

Another aspect of the program will investigate and determine viable rural development areas by assessing socio-economic factors affecting trade-centred areas within a given economic region.

Benefits of the program are derived from increased local participation and involvement in the rural development process. With such involvement, programs gain acceptance and clarity by the transfer of information between researchers and local action groups. Local people, in short, become directly involved in fact-gathering analysis, discussion and development of action programs.

Local Participation

Various extension fieldmen from Manitoba government departments have been aiding this local involvement program. During 1964, the Interlake Resources Conference was held at Arborg and Stonewall. These meetings provided the kick-off point for the establishment of many local development groups — now deeply involved in the planning of rural development projects in their own areas. A look at the steps one such group went through is interesting:

- About 500 people attended the Interlake Resources Conference during May. Top administrators from government resources departments addressed the meetings — outlining the function of each department and how they can be utilized in a development plan. Here, the workings of ARDA and other area development bodies were first explained.
- As a result of the Interlake Resources Conference a number of individual meetings were held — attended by government extension workers and local people. A meeting was then organized for Arborg Community Hall on the following June 4. Extension men were on hand to answer questions as needed. At this

meeting considerable discussion was given over to the delineation of an area to be represented by a more permanent group. Finally it was decided that twelve people should form an Area Development Committee.

- The next meeting, held on June 25, saw further planning being started. It was decided that several kinds of local development were possible and should be explored. Also, it was felt that many areas could be drawn into an organization to work out local problems together. The local group decided to call itself the Bifrost-Fisher Development Board and they made plans to hold their meetings at different centres in the area. By now, the local leadership was beginning to take charge.
- By July 28 the group was discussing such practical needs as the type of symbols and letterheads which could represent the Board. Many projects were discussed and plans made for gathering the facts needed to make concrete plans.
- August 18 fourth meeting. Four top government officials attended to answer specific questions about development possibilities, local applications of government assistance, and other matters. As a follow-up to the meeting, a letter came from Bifrost-Fisher asking the government for a soil survey and outlining a road project (to open up a local area considered to have good tourist development potential).
- Since these first meetings, the group has gradually evolved into a smoothly-functioning local association which is tackling increasingly complex problems and proposing a wide variety of projects. The leadership has developed its talents, ties with other areas have been made (there is now a regional development committee) and public interest has increased as a result of local participation in the planning of area development.

A look at the minutes of the March 24 meeting — not quite one year after the Interlake Resources Conference — gives an idea of the extent of the Board's activities.

Thirty-two people attended a meeting at the Fisher Branch School. Points of business or discussion included:

- Progress Report: on a community pasture project in which the committee is interested.
- Discussion: of possibilities of establishing a vocational training school in the area. A Department of Education representative is to be asked to speak at a future meeting. Other ideas an

adult education officer for the area; a mobile classroom; some thoughts for information programs.

- Project Presented: for a sylvan wildlife management area. This was approved by the committee and forwarded to government as a potential ARDA project.
- Another Project Proposal: a seed cleaning plant to be located at Arborg. This was tabled for further study as to feasibility. ARDA to be contacted to see if the project (in outline form) will qualify for ARDA assistance.
- Project Presented: flood relief along the Fisher River. Approved and forwarded to government.
- Progress Report: on a dredging project proposed earlier.
- For Approval: colour letterhead and poster design to be used for tourist advertising. Approved by meeting with suggestion that all Interlake development area boards should adopt same design.
- Progress Report: on soil study project.
- Discussion: on proposal that representatives of different area development boards meet for the purpose of setting up an over-all Plan of Programs for the Interlake area.

As can be seen, self-study methods introduced by government extension staff have helped establish this local group of people as an effective and vitally-concerned planning and action organization. They are now capable of dealing with their own local problems and have strong links with government agencies which can provide technical know-how or other assistance.

A Major Drainage Project

Farmers whose crop is wiped out by flooding or whose planting is delayed for the same reason suffer a financial loss which may take years to recover.

A 30,000-acre crop loss is a serious matter — for hundreds of farmers. In 1962, flooding in the Grassmere area of Manitoba damaged about a third of the total crop acreage — a condition which has occurred many times in the past because of inadequate drainage over the 182 square mile area.

Losses to farmers have not been confined solely to crops, either. Because of the continuing risk they have been obliged to pay higher and higher crop insurance premiums. Also, farm buildings are damaged by high water, livestock is often killed by advancing waters, stored produce is ruined, bridges and roads are damaged.

Since the area was subject to this frequent flooding, the local people and the provincial government were interested in combatting the problem once and for all. Their proposal, known as the Grassmere Drain Project, involved enlargement and reconstruction of existing drainage outlets to carry runoff waters from the area into the Red River.

Under the Soil and Water Conservation provisions of the ARDA agreement this work was undertaken and completed during 1964. Grassmere area farmers are now planting their crops with less fear of loss by flooding.

Improving a Great Inland Fishery

It must come as a surprise to many Canadians to learn that Manitoba — one of the prairie farming provinces — supports a \$7 million annual fishing industry in which 3,500 to 4,000 fishermen are actively engaged. Nearly 35 million pounds of fresh water fish are taken annually — about two-thirds of these from southern Manitoba (Lakes Winnipeg, Manitoba and Winnipegosis) and the remainder from some 300 northern lakes.

The fishing season is about evenly divided between summer and winter — fishermen have developed several ingenious methods of boring through the ice to get at the catch.

Manitoba fishing is not without its problems however and the province is presently involved with several programs which will bring about major changes in the structure of this industry.

In past years the industry has been poorly organized — a major problem is that there are many more fishermen than the industry can really support. Many fishermen live marginally, as a result. There is, on the one hand, duplication of fish processing facilities on the lakes — on the other hand, a shortage of many facilities. Much of the processing equipment is substandard.

Marketing procedures are poorly established (about 95 per cent of the total catch is sold in the United States) at most stages of the present procedure — starting with the fisherman himself (who in the past has had to rely on inaccurate or non-existent information on which to base his selling price to processors) right through to the wholesale distribution of fish. Prices have been known to fluctuate widely, creating instability over the whole industry.

Fishermen want to learn more about their industry — about marketing, gear improvement, equipment maintenance, new techniques. Some co-operatives have been formed, more are needed. A good credit program is needed for fishermen to improve their equipment and their operations.

To meet these needs, Manitoba is drawing upon many governmental resources and facilities — and ARDA is playing a role in this program.

ARDA research projects have outlined educational needs in the fishing industry, have determined leadership patterns in fishing communities. An appraisal of rough fish development potential was also prepared under ARDA.

With ARDA assistance, several ideas have been developed which will provide fishermen with the information they need to better their situation. Among these, "The Fish Market Report", a radio series begun in 1964 with ARDA-paid staff, brings a weekly summary of the past week's market variations. The broadcasts are given in two languages — English and Cree (about 60 per cent of Manitoba's fishermen are Indians). Posters summing up the same information are prepared weekly for distribution to general stores, fish dock areas, and other public places where fishermen can read them. Access to this kind of information is giving fishermen a better break when selling to processors.

An education program is being set up, recognizing that there are certain language and cultural problems to be overcome.

With ARDA financing, a film is being prepared which will show all stages of fish processing and marketing. The film will have both English and Cree sound-tracks.

A series of drawings has already been published in Manitoba's publication "Fishing — A Bulletin for the Commercial Fisherman" which outlines the many marketing stages Manitoba fish pass through. Talks, slides and other information approaches are utilized by fisheries extension workers.

Under the auspices of the Department of Labour an annual school for fishermen is held at Winnipeg. About 25 men are given training and instruction in practical subjects like net care, fish biology, industry regulations, gear methods, co-operative principles, first aid, motor maintenance.

A program is being devised to eliminate rough fish from Manitoba lakes. Rough fish (there are several kinds) are destructive of nets, consume food needed by more commercial species — thus limiting the

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quantity of commercial fish available. Manitoba hopes to increase the catch of rough fish and arrange to have them processed and marketed as fish meal or for use as mink food.

A small trawler has been built and is now trawling for rough fish on Lake Winnipeg. The trawler idea came as the result of two years' research into better methods of catching rough fish — which damage traditional gill nets.

A pilot processing plant has been set up so that the fish can be processed and frozen before losing the high quality necessary for animal food. Provincial officials hope the experiment will interest commercial investment in similar operations on other Manitoba lakes. Improvement of the fishing industry will result as more valuable species increase upon the lessening of food competition from rough fish.









Saskatchewan

Relieving the Water Shortage

In the southern half of Saskatchewan water for consumption by man and livestock, for irrigation, and for recreation is generally scarce and not well distributed. Hamlets, villages, and towns in many areas do not have anything like an adequate water supply. In such areas even the farm homes, through inability to locate well-water, are dependent on dugouts which do not last all year in some years. Keeping livestock becomes difficult or next to impossible. At times even the water used for washing the dishes is kept to a minimum. Flush toilets are either out of the question or, if installed, can be used only when the water supply is not critical, and it's critical most of the time! When critical, the outside "biffy" is pressed into service.

Present research covers a broad spectrum. One study project will determine the best ways to hold and conserve surface water. Another deals with ground water exploration. One result is this: researchers found that the Missouri River, before it was diverted south into the Mississippi during the ice age, flowed through southeastern Saskatchewan on its way to Hudson Bay. The vast deposits of sand and gravel in the buried channel provides an important source of water. Such studies are being carried out all over the province.

Other studies seek to determine ways to develop a basis to predict runoff in drainage basins; to evaluate the various designs to reduce evaporation and seepage; to predict loss of water in farm ponds and dugouts; another study will develop a hydrometric station network so that in future it will be possible to more accurately measure the water supply potential of all streams in the province. In this way, the limited surface water supplies can be better understood and controlled.

Apart from water development and conservation, Saskatchewan farmers must overcome the danger of erosion of the fertile surface soil by wind and water. ARDA funds are being spent to expand programs which have been carried on for some time.

The province's shelter belt program is an effective weapon against wind erosion. Farmers can apply for financial assistance to plant and maintain trees. The Prairie Farm Rehabilitation Act (PFRA) provides trees to farmers for field shelter belts free of charge. Shelter belts cut down the action of wind at ground level — sometimes reducing ground-level wind-speed to only a few miles per hour when, above the trees, air is moving at up to forty miles per hour. In the next few years Saskatchewan expects to double the number of trees planted annually.

Once a community has formed a "Conservation and Development Group" to plan tree planting programs, funds are available to assist with the planting. At present, between 800 and 1,000 miles of trees are being planted annually under this incentive program.

Increased programs of drainage of good agricultural land that is frequently flooded are also encouraged by ARDA. Thirty-two drainage and flood-control projects are in progress — mostly in northeastern Saskatchewan. The cost is high — drainage and flood-control projects to benefit 2,250 farmers will cost about \$2 million. Nearly \$300,000 of this is borne by the farmers themselves. The balance is shared equally by Saskatchewan and the federal government.

Other Uses for Land

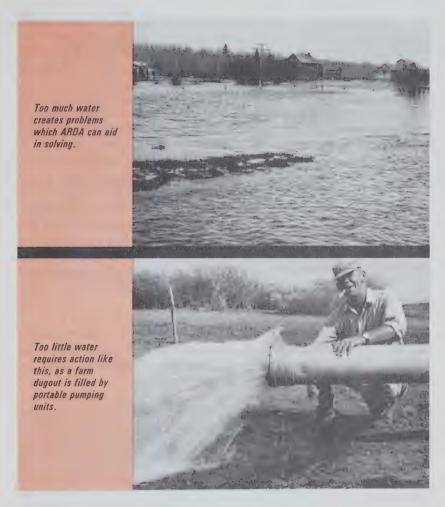
As a result of drought conditions a considerable shift in population occurred in the nineteen-thirties — from the southern prairie to the northern forest fringe area. But with improved technology and larger farm units, the south is facing few problems of land adjustment today.

However, new problems of land adjustment in the northern part of the province have not been tackled and today this area must overcome some serious problems. In many areas of the north, marginal or submarginal land, climate and market limitations keep net returns down and farm families are barely making ends meet.

Most of the good land in the north is under cultivation. Farmers wishing to expand have a real problem since there is little developed land available. As soon as any comes on the market the competition for it is keen — driving prices way beyond the reach of the marginal farmer. What land is available is best suited to the growing of cereal grains — especially wheat. The problem is, can farmers in this region expand their operations to include livestock — without sacrificing crop land?

In this northern part of the province there are some acreages of raw land available which, with development, are suitable for growing forage. Saskatchewan, at first on its own and now with the assistance of ARDA, is gradually creating an extensive community pasture program, which is doing much to offset the difficulties faced by farmers in that part of the province. The community pasture development is designed to progressively improve the quality of livestock and increase fodder production, aiding farmers with too little acreage for an economic farm unit.

By mid-1965 there were in Saskatchewan 196 community pastures of four kinds—co-operative, municipal, provincial and PFRA. Of these, ARDA has assisted in the development of 78.



Research for Better Living

The Saskatchewan economy is firmly geared to agriculture—about 40 per cent of Canada's total cultivated land is found in the province. Accordingly, the province must promote the fullest development of any other natural resources which are available, to broaden the resource base and improve agriculture wherever possible.

The province uses the ARDA legislation to head-off problems before they have a chance to fully develop—thus avoiding the necessity of 'emergency' action at some later time. This requires research.

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Research projects underway at present include: A Farm Cash Income Study; Inventory of Agricultural Resources; Research and Planning of Alternate Land Use for Forage Production; Recreation Economics; Problems of Farm Families Residing on Marginal Lands; Public Wildlife Recreational Areas Study.

Research projects to be undertaken include: industrial and recreational development potential studies, land-use and capability studies, special studies to determine methods of improving community services such as telephones and roads.

Intensive studies are being undertaken in the province to determine future procedures relating to rural development areas as one large area sometime in the near future. This will qualify the area for extensive ARDA assistance at all stages of the area's development.

In preparation for this, much data is being collected which will help in making careful appraisals of present resource use and deciding what adjustments are necessary. In some cases, more specific studies will be necessary before pursuing projects leading to agricultural adjustment and upgrading of living standards of residents in these areas.

Numerous meetings are now organized in ARDA rural development areas. The planning and study are organized with the participation of local people. Reports will be prepared and studied by local committees. Wildlife experts, agrologists and other professional staff are supplied as required for carrying out research.



Meeting the Needs of Indians

The Saskatchewan River Delta area is one of the large areas in the province which has great potential for new development. The province is trying to meet the needs of the 1,200 to 1,500 people (mostly Métis) living in this area where the population is rapidly increasing but incomes remain extremely low. Complete investigations of the agricultural potential and other means of making the people more self-supporting have begun. Studies of the social and economic implications of possible policies and programs are being undertaken with research funds provided by ARDA.

Other studies under way in the Delta under the ARDA program are: a fisheries inventory; soils engineering research; soil capability studies; economic studies of the renewable resource potential; and a wildlife inventory.

From all of these studies will come the recommendations for an over-all development plan for the region, aimed at encouraging local people to make their own decisions and implement their own ideas with a firm basis of knowledge of the area and solid government programs.

An Industry that Benefits Rural and Urban People

In southern Saskatchewan, lakes are not numerous—particularly those which are suitable for recreational use. Land ownership patterns inhibit access to lakes found near larger urban centres. A vacationer, tourist, or just-plain-hot-and-tired local resident often must trespass to take a dip on a hot summer day. However, the province has now coupled part of its land adjustment program with the development of recreational areas. Under this program five new public recreation areas have been developed on lakes within reasonable driving distance of major urban centres.

Inadequate public access to water-bodies has long been a problem in Saskatchewan. Recent studies indicated that many local residents were driving out of the province for summer leisure activities—spending their money away from home in the process. Recommendations of the consultants emphasized the need to provide public access to the few resources available. The demand for amenities of this kind are a long way from being met.

The lands purchased and developed were formerly used for farming or low density grazing. Where cropped, some soils produced inadequate yields except in very favourable years. Under the Alternative Land-Use provisions of the first ARDA Agreement of 1961, such land

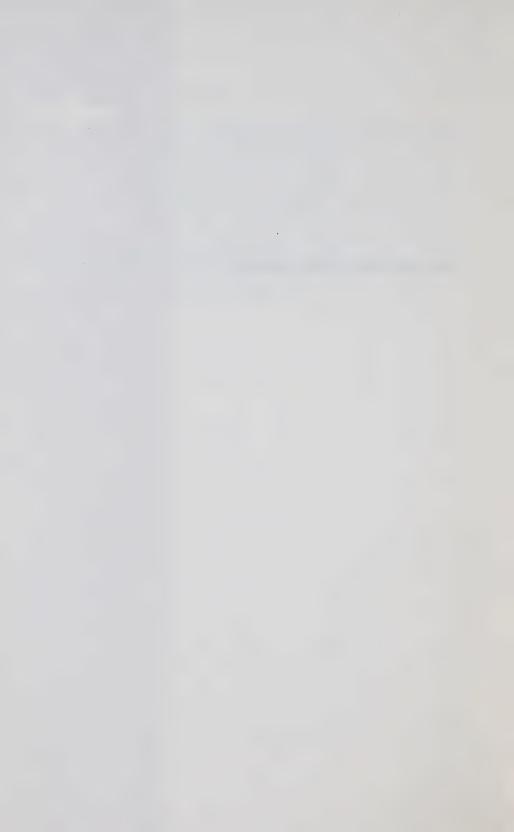
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is being brought into public ownership to expand and establish provincial parks. At the same time, marginal farm operations are eliminated, and a higher alternative use for the lands is established.

Increases from tourist revenue are expected. There are many benefits to local residents in these rural areas. In addition to earning wages from the development and maintenance of parks, local residents have taken the opportunity to operate concessions of various kinds.

Five new parks are located at Pike Lake, Buffalo Pound Lake, Rowan's Ravine, and Etter's Beach on Last Mountain Lake, and at Saskatchewan Landing on the South Saskatchewan Reservoir. A total of nearly 12,000 acres of land will be changed to park use at the latter site. The other four areas total 2,780 acres.







Alberta

Public Participation in Development Projects

Currently in the planning stage, but on the verge of an extremely detailed action program, is an Alberta rural development area known as Census Division 14. After it is formally designated, financing of the action program will be aided by ARDA. To date, ARDA funds have been used in preliminary work, including an extensive Resource Inventory which is nearing completion.

The area includes the communities of Edson, Whitecourt and Hinton, with several smaller centres. It is not much better off or worse off than many other areas of the province, but its distinction is that it is on the verge of tremendous change brought about by a shifting of resource use. Among other changes anticipated is a \$20 million pulp mill at Whitecourt. At the request of groups and individuals within the district, an examination of the area's problem — present and future —was undertaken. Government planners feel that the Census Division should be an excellent nucleus for rural development programs over a far larger area, since this district is closely linked with surrounding districts.

The broad concept behind the rural development work in Division 14 is, "involve the people". To that end, a number of ideas have already been put into effect, to enable the residents of the area to handle their own planning and devise their own solutions to problems.

Among them is the Resource Inventory, already mentioned. When completed it will provide the raw material with which to examine the economic potential of the area. It includes information on natural and human resources, management and leadership, capital, income, market organization and structure, industrial development, education, government and other areas of study.

There is a Technical Panel comprising all the federal, provincial and municipal government department heads within the region, including police, foresters, welfare and extension specialists and others. A number of seminars have served to alert these public servants, who come in contact with the people of the area every day, about the problems and possibilities of the area. In this way, there are no groups duplicating the work of others since all know about the activities and objectives of the other groups.

A program called "Seminar 6" is being staged, in which local people with demonstrated leadership qualities participate in six seminars

over a twelve-week period. The idea at these seminars is to discuss such topics as, The Changing Community, The Changing Economic Base, Economic Growth and Development, Production and Productivity, Economic Bases and Population Change, and Social Action of Development. These people are thus equipped to carry the ideas and information to their own areas. This will doubtless lead to the formation of other committees to study and to carry out action programs. With the inventory as their basic guide they will be referring to the Technical Panel for specific assistance when and as required.

Upper (provincial) government level seminars will be held in which the approach and progress of work in Division 14 will be explained to officials who sooner or later may be called on to approve the projects and programs developed co-operatively by the people and their government. Thus, the government and each part of it will have an understanding of the needs and wants of the local people.

There are to be press and communication media seminars involving writers, reporters, editors and broadcasters whose audiences include people of Census Division 14. The seminars will serve to inform these vital information links about the objectives and progress of the rural development program.

The inventory and planning work began in August, 1964. The organization of a program leading to community action began in midsummer 1965. The 8 to 10 ARDA-paid staff planners hope to see the local people in full control of planning and action by mid-1966.

As one planner remarked, "If we've done a good job we'll be completely superflous by that time and the people of Division 14 will have taken over most of our work".

Government's Active Role in Research

Alberta, with funds made available under ARDA, is conducting studies and research on these subjects:

- The soundest use and development of public lands for grazing. How much will the public pay to put their livestock on improved public lands instead of using other alternatives open to them? Where, and how quickly, should public grazing reserves be developed? These and other questions will be answered by this research.
- The feasibility of expanding the fresh vegetable industry in Alberta. This study will gather together a great deal of information relative to the vegetable industry—which has never

progressed far in the province because of various limiting factors. How can the industry be improved and developed? How can private enterprise be encouraged to develop fresh vegetable production; marketing, and so on? Should the government actively promote such an industry?

- Benefits to be derived from irrigation in a selected district. This
 project will provide information as a basis for policy and
 project planning of irrigation works.
- Location of more ground-water sources and evaluation of longterm changes in aquifer potential. As more ground-water sources are located, many people on the prairies will benefit—including farmers and most users of water.

A Satisfied Farmer

Norman Anderson is a farmer in his mid 40's who lives near Taber, Alberta. In 1957, the Alberta government opened the Purple Springs Community Pasture not far from Mr. Anderson's farm. In recent years, financing of the operation and further development of this pasture has been taken over by ARDA. This project, begun by the province, now continues with the support of funds provided under the federal-provincial ARDA program.

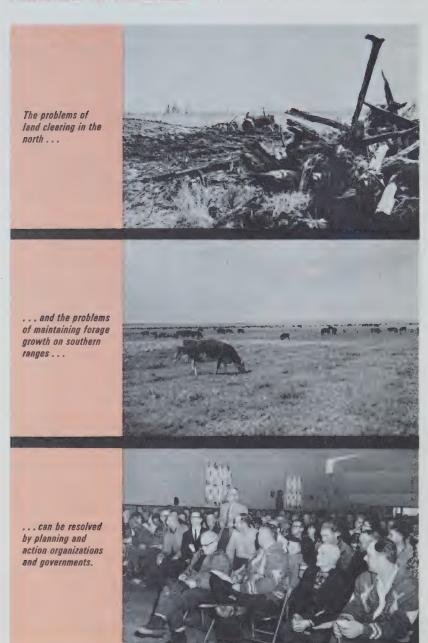
Mr. Anderson has used this pasture since it was established. Here is how he feels about the usefulness of such projects:

"Small farmers like me have to be diversified so that if one part of our crop fails we have something to fall back on. I rotate sugar beets, corn for canning, grain and alfalfa.

"I'm a great believer that livestock is a must on a small farm. I used to keep only about seven head of cattle on my place. Now, I keep a milk herd of sixteen cows which I pasture on 25 acres of my own land. Then, I have over twenty yearlings and beef cows in the Community Pasture. These cost me about $7\frac{1}{2}$ cents per pound to pasture—but I feel this is a good deal since I'm not involved in having to finance the kind of pasture-land I would need to run that many animals on my own land.

"My farm is just 155 acres—about average size around Taber. It's hard to expand here—there's no land available. Prices are high because everyone needs the land they've got. Around here we need a good many acres just to pasture one cow. Now, if I had to buy enough land to run the livestock I have now, I would have to buy anywhere from a half to a full section of land. Dry land costs \$30 an acre—an irrigated 640 acre section could cost up to \$120,000 and, naturally, not

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me or any of my neighbours could possibly afford to go in for a deal like that.

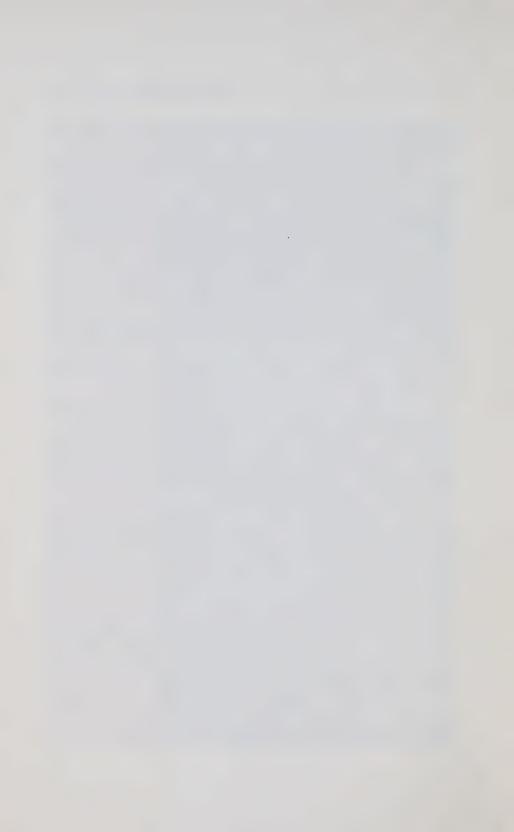
"On the other hand, with the community pasture, my herd accounts for about half my annual gross, or about six to seven thousand dollars. If I only had my original seven head you could knock that gross down to about \$1,000—and I'd have to find work away from the farm if I wanted to keep my family going. Either that or I'd have to grass more of my farm land and that would decrease my land for other crops. Anyway, I just don't have enough land to handle more livestock.

"About half my neighbours are using Purple Springs. The others either don't have livestock or they have more land to run their animals on. We all figure that the pasture makes a real difference to us. I figure I get other benefits, too. I have two boys—Brian, he's 15 and Murray, 17. This year Brian took the 4-H club championship for his calf—one he'd selected from our herd on the Purple Springs pasture. If we didn't have the larger herd, made possible by the pasture, we couldn't go in for selection like that so I figure that the pasture is helping all us smaller operators to improve the quality of our herds, too.

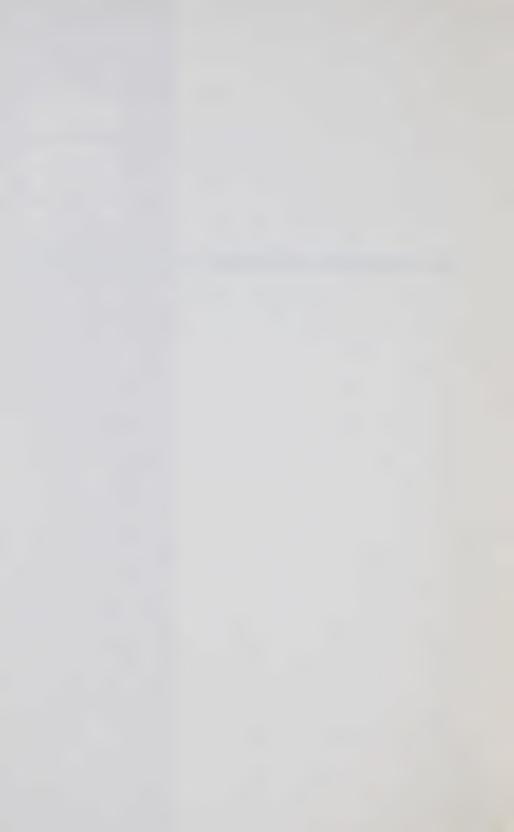
"With the pasture, then, by cutting a few corners here and there small operators like me can make farming pay. Because we can live a pretty good life here at least one of my boys wants to stay in farming—and the other one is nearly sure he'd like to, too. They'd probably go away to college to learn more about it, of course, and they think they'd be able to do even better. If we weren't making a go of it here you can bet they wouldn't be interested in farming."

With local government and the farmer himself paying part of the costs—more than half in some cases—Alberta is seeking to increase forage production. Particular attention is being given to areas of the province where for years feed has been annually shipped in to maintain livestock production. By making seed available in large quantities at reasonable prices, it is hoped that forage production can be raised enough to meet local needs.

In all, Alberta has opened, or is about to open, a total of 17 community pastures in various parts of the province—mostly the southern area. Total acreage is in the neighbourhood of 427,925. Nearly 600 farmers are benefitting from the 10 pastures presently in operation under the federal-provincial ARDA program.









British Columbia

Difficulties Being Overcome

British Columbia's rural problems tend to be different from those of other provinces. For one thing, British Columbia has greater variability in crops, animal production, climate and soils than any other province, and has more difficult communications problems than any other province. The province has a lower percentage of rural low-income families than any other province. There are known pockets of low income where mines have been abandoned, or where a few poor farms may exist in a river valley, or where certain rural groups are isolated in a social or cultural way because of religious or ethnic reasons. However, regional programs of rural development are difficult to evolve in British Columbia because of the numerous pockets of agriculture and the scattered and heterogeneous nature of the rural communities. The ARDA Administration of the province is now studying ways of carrying out rural development programs along with other types of social programs to aid these less privileged rural residents.

Rural development under ARDA will be tied closely to various programs of industrial development, social assistance and community planning programs so that money and knowledge can be put to the best use.

Too Little or Too Much Water

Water is a serious problem for most of B.C.'s farmers. Rainfall during the growing season is low, resulting in similar to semi-arid conditions in much of the province. In some cases there is not enough of it; in other cases there is too much. The Soil and Water Conservation portion of the ARDA agreement will be used to improve both situations.

Much of the province is mountain terrain, unsuitable for any kind of cultivation and rarely useful even for forage. Less than 2 per cent of British Columbia's total land area is farm-land and less than .5 per cent is crop-land. One small area— the Lower Fraser Valley—yields nearly 50 per cent of the province's total agricultural production.

The river valleys are the basis for most agricultural development, except in the interior plateau, where there is large-scale ranching. As a result, farming areas are scattered in small pockets all over the province. Some of these pockets may consist of ten to twenty farms on a total land area of 200 acres—as little as ten acres apiece. Cultivation is of

course intensive, and there are obvious difficulties when it comes to controlling water supplies.

Farms situated high on valley sides must bring water in from still higher points in the mountains, and over the years every community or cluster of farms has developed some sort of system to bring this water to the farm sites.

Most of the irrigation systems are anywhere up to fifty years old. Originally built of wood in most cases, the pipe-lines and other equipment have been expensive to maintain and are becoming more and more inadequate for modern needs. The local Water District Boards who manage the irrigation systems are now able under ARDA to replace antiquated systems with new equipment—easier to maintain and less likely to let the farmers down.

The local district puts up one-third of the replacement and improvement costs. ARDA pays the remaining two-thirds—the federal and provincial governments sharing this cost equally. Annual dues collected by the local trustees ensure that all users help to pay for the system. In this way these rural residents continue to make their own decisions about the local irrigation system, in keeping with sound democratic principles.

Without the improvements being planned and carried out by the local people, these areas would be in real trouble since the old equipment is growing less and less reliable each year. Without ARDA's assistance the cost of the necessary improvements would be entirely too high for these Water Districts to bear.

In some areas land is highly productive and the climate is good; however drainage and water supply present problems. ARDA research projects are underway to detect ground water for farm use, to study possibilities for diversion of water for irrigation, and to study the economic and engineering aspects of many irrigation and drainage developments.

In other areas of the province the problem is not a scarcity of water but of too much water. These are areas afflicted with flooding and erosion of good agricultural soil caused by swollen rivers fed by melting snow high in the mountains. The solution in some cases has been to build dykes. But the cost is high—up to \$25 a foot—and many miles of river course need dyking.

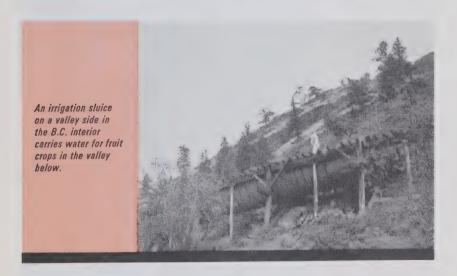
Research, paid for by ARDA, is investigating practical means of overcoming this annual problem, thus relieving valley farmers of losses caused by flooding.

Livestock Men Take Action

One cow to forty acres is common enough in British Columbia areas where livestock owners use bush pasture for grazing. Such sparse grazing is not satisfactory from the rancher's point of view because animals work off too much poundage as they move about, and predators often attack wandering livestock, causing losses which can push a marginal operation into the red.

In past generations Crown lands were used for bush pasture, and the stockmen often burned off the forest to increase the forage yield. This practice was tolerated for some years until forest protection measures put a stop to such waste.

Now, on land set aside especially, the Grazing Division of the British Columbia Department of Lands, Forests and Water Resources has begun a program of pasture development which is showing highly



promising signs of success. The province's valuable forest resources are benefitting as well as the farmer.

All that the stockmen really want is good grass and water. Demonstrations by the Department of Forestry and Rural Development have shown stockmen that fenced, improved community pastures can pay real dividends.

Three community pastures are now in operation in the Peace River district. Two of them are developed and all are enclosed by fencing or natural barriers. Two more areas have been set aside for future development on land considered unsuitable for any other kind of agricultural use. The cost of development would take more capital than local stockmen could raise, so ARDA pays for fencing, clearing, seeding grass, developing water supplies, and so on. Management of the pastures is done by ARDA, and local organizations help to set pasture policy. Pasture fees will probably cover operating and maintenance costs.



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Several thousand acres have been improved and the results have been spectacular. Land previously considered barely useful for grazing is yielding up to forty times more than the unimproved land yielded. Conservative estimates indicate that up to twenty-fold increases in forage production can be achieved if the land is properly developed.

All this looks good to local livestock producers. In addition to the benefits derived from better forage, they can control their cattle better in the community pastures and avoid risk of loss from predators. The foresters are better satisfied too, because some land formerly used for forage can now be put into regular forest production. However, British Columbia does have special problems not common to the rest of Canada when planning the development of community pastures. Although the ARDA agreement currently does not fully meet these problems, it is probable that future studies will yield satisfactory solutions.





CANADA





Federal Research Highlights

Federal ARDA is aiding in the building of a fund of knowledge from which responsible Canadians can draw the information needed to carry out specific projects to overcome rural problems. By aiding and in some cases carrying out research of all kinds, the Government of Canada helps people all over the country to plan for the development of local resources to increase rural income and employment opportunities.

The Government of Canada, through its ARDA Administration is a partner in provincial projects of many kinds, and also sponsors research which provides valuable assistance in provincial and national decision making.

ARDA programs are not intended to supplant existing programs; they are intended to aid in correlation of existing programs, and to fill substantial gaps where existing programs do not meet current needs.

The federal ARDA Administration has helped to co-ordinate many programs, both federal and provincial, focusing them on rural resource development and social and economic development.

The Eastern Canada Farm Survey

In 1963 ARDA commissioned "The Eastern Canada Farm Survey". This report was one of the first pieces of research done under the ARDA program. It has stimulated thought, interest and action at all levels of government, and has aroused the interest of many non-governmental organizations and private concerns. The observations and recommendations of the Survey have contributed to the planning, research and development undertaken in eastern Canada since the report was published.

The object of the survey fell into three parts.

(1) To establish whether a limited number of farm interviews would have validity in measuring farm situations and attitudes throughout eastern Canada. It was designed to reveal for future reference whether it would be possible to make very fast surveys which would give accurate enough information to base policy decisions upon them with confidence.

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- (2) To get answers to four sets of questions, all separate but related.
 - (a) What is the attitude of farmers towards the adjustment of productive factors on their farms?
 - (b) Are there local prospects for alternative on-farm and off-farm sources of income? Are farmers making plans to benefit from any such alternative sources of income and could ARDA or other public policies be of assistance?
 - (c) Are credit needs adequately met and would additional credit be of assistance?
 - (d) Are problems with regard to feed grain and mixed feeds prejudicing the ability of farmers to persist in or to expand their livestock enterprises?
- (3) To detect and define the influences against and in favour of adjustment and so to define the most fruitful areas of activity under ARDA.

Six hundred and sixty farmers were interviewed—thirty each in twenty-two zones (five in Ontario, ten in Quebec, three in New Brunswick, three in Nova Scotia and one in Prince Edward Island).

The completed report, which aroused great interest all over the country, included the following observations and recommendations:

- Approximately 50 per cent of the farmers in the study areas make only a marginal contribution to the total agricultural production of Canada.
- The level of public school education of farm children is very low—particularly in Quebec.
- All provinces in the survey area are failing to train their farm young people to fit into the rapidly changing economic environment of today.
- Relatively few farmers in any of the study areas who owned less than 100 improved acres had achieved an economic farm operation—yet in Quebec and Nova Scotia the average farm is far below this minimum.
- Almost half of the cash receipts of farmers with incomes of less than \$2,500 came from off-farm earnings or social welfare.
- Commercial agriculture is becoming more specialized and more dependent on livestock.

- Farm credit programs need constant review if they are to facilitate efficient rural adjustment.
- A redefinition of the farm problem is needed.

The Eastern Canada Farm Survey confirmed that the most useful help ARDA can give to many of the small non-commercial farmers is to devise techniques which will help them to move or to change to other occupations:

The Study of Rural Poverty

The word 'poverty' seems to have many meanings. Often these meanings include ideas that the poor are self-made—the rejects of a successful society.

To give life and meaning to the statistics on poverty, ARDA commissioned a study by the Canadian Welfare Council which is now being reviewed by various administrations concerned with rural development.

Four rural areas of Canada were chosen for study. These were areas which economic opportunity seems to some degree to have passed by: Inverness County, on Cape Breton Island in Nova Scotia, whose people are predominantly Acadian French and Scottish; the counties of Papineau, Gatineau and Pontiac in the province of Quebec, an area where English and French populations live side by side; Lanark County, Ontario, one of the oldest areas settled by English, Irish and Scots; and the Interlake area of Manitoba, where twentieth-century immigrants from many European countries outnumber both native Indians and people of United Kingdom origin.

The analysis and descriptions of the problems of these people which resulted from the study offer some understanding of people who are poor in rural Canada. If there is an outstanding conclusion to be drawn from the present study it may be that the poor are not degraded and that there is a great deal that can be done to help them achieve a fair share in the economic life of the country.

The study contains two kinds of information. The first part shows how the behaviour of some families is affected by isolation and disadvantage in getting income, educating the family and keeping them healthy.

The other type of information in the study is a record, gathered through interviews, of the thoughts some of the poor have about their own lives and the choices they feel they must make in life.

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The specific objectives of the study as originally submitted were as follows.

- (1) To provide information about:
 - (a) the economic and social opportunities and limits within which poor families live in rural areas of Canada;
 - (b) the ways in which members of poor families perceive their opportunities and limits;
 - (c) the decisions and actions they take with respect to them.
- (2) To contribute understanding of the social situations and behaviour of poor families, to the development of government policy. For example, should governments encourage rural poor to move, or should governments stimulate local development? How much and when should governments interfere?
- (3) To contribute to knowledge of poverty useful in dealing with problems of urban areas: e.g., would policies adopted to deal with rural poverty (such as migration) simply contribute to the problem of the urban poor?

Research of this kind provides a bank of knowledge on which program planners can rely in determining the types of programs best-suited to rural needs.

Maps on Social and Economic Disadvantage

In 1964 federal ARDA published a set of maps designed to easily show the extent and location of disadvantaged rural population groups. It was assumed that such maps would be extremely useful as reference material not only for governments but for journalists, Members of Parliament, social service agencies and the like. This project resulted in the distribution of nearly 15,000 sets of the maps.

Nine 4-colour maps were drawn incorporating statistics gathered during the 1961 Census of Canada. The nine maps show:

- (1) An index of counties and census divisions.
- (2) Distribution of population.
- (3) Low-income farms.
- (4) Low rural non-farm wages.
- (5) Low urban wages.
- (6) Low non-farm family incomes.
- (7) Registrations for employment.

- (8) Low educational levels.
- (9) Infant mortality.

Looking at the maps the viewer can see definite relationships between the factors that cause rural poverty, for example, low education areas are plagued with low income.

The Canada Land Inventory

Competition for land for various alternative uses has heightened the need for improved knowledge of the productive capability of lands.

The relatively abrupt transition from a primarily agricultural economy to a primarily urban-industrial economy has been accompanied by changes in land use. Further changes may be expected as more economic and demographic changes occur. Effective planning for changes of this nature requires firm knowledge of the physical quality of lands and soils, and the location and quantity of each category.

The deliberations of the "Resources for Tomorrow" Conference of 1961 resulted in strong recommendations, by specialists representing all resource sectors for a land capability survey. As broad resource management and social planning began to take shape under ARDA, and as provincial governments ventured further into the sphere of regional development planning, it became increasingly apparent that without a land capability inventory, programs of land adjustment and regional economic development would be based on judgements which, in the absence of essential information, could be fallible and costly.

The Canada Land Inventory brought together many programs in each province and in the federal government, making them into a coherent national research program to meet local, provincial and national needs for information on land capability. Land classification work of more than a hundred federal and provincial agencies, as well as numerous individuals, universities, private companies and non-governmental organizations have been drawn together and co-ordinated under the Canada Land Inventory.

The Inventory is designed primarily for planning. It will provide information essential to land resource development planning at the municipal, provincial and federal levels of government. It will not provide detailed information on small parcels of land such as would be necessary for land resource management planning on individual farms and small watersheds.

Because computer mapping techniques are used, the Inventory can be up-dated and improved as more detailed land capability informa-

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tion becomes available and changes occur in the social and economic factors.

The broad objective of the Canada Land Inventory is to classify lands as to their use capabilities and to obtain a firm estimate of the extent and location of each land class. These lands are being classified according to:

- their physical capability for use in agriculture, forestry, recreation and wildlife management,
- their present use,
- socio-economic factors relative to their present use.

This vast amount of information on Canada's land resources is being gathered and is to be stored, analysed and published in such a way that the Inventory will become a working tool in the rural development program across the country.

APPENDIX

(as of January 1967)

British Columbia

Hon. Francis X. Richter, Minister of Agriculture, Victoria, B.C. Mr. A. H. Turner, Deputy Minister, Department of Agriculture, Victoria, B.C.

Alberta

Hon. H. E. Strom, Minister of Agriculture, Edmonton, Alberta.

Mr. G. R. Sterling, Chairman, Land Utilization Committee and Coordinator, Alberta ARDA Program, Legislative Buildings, Edmonton, Alberta.

Saskatchewan

Hon. D. T. McFarlane, Minister of Agriculture, Regina, Saskatchewan. Mr. J. E. Dehm, ARDA Co-ordinator, Director, Plant Industry, Department of Agriculture, Legislative Buildings, Regina, Saskatchewan.

Manitoba

Hon. H. Enns, Minister of Agriculture and Conservation, Winnipeg, Manitoba.

Mr. E. A. Poyser, Provincial ARDA Co-ordinator, Department of Agriculture and Conservation, 709 Norquay Building, Winnipeg, Manitoba.

Ontario

Hon. Wm. A. Stewart, Minister of Agriculture and Food, Toronto, Ontario.

Mr. H. F. Crown, Director ARDA Branch, Department of Agriculture and Food, Parliament Buildings, East Block, Toronto, Ontario.

Ouebec

Hon. Clement Vincent, Minister of Agriculture and Colonization, Quebec,

Mr. J.-B. Bergevin, C.P. 158, Hôtel du Gouvernement, Québec 4, P.Q.

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New Brunswick

Hon. Adrien Levesque, Minister of Agriculture, Fredericton, N.B.

Mr. J. P. Blanchard, Director, Rural Development, Department of Lands and Mines, Fredericton, N.B.

Nova Scotia

Hon. I. W. Akerley, Minister of Agriculture and Marketing, Halifax. N.S.

Dr. George R. Smith, Director of ARDA, Department of Agriculture and Marketing, Truro, N.S.

Prince Edward Island

Hon. Daniel J. MacDonald, Minister of Agriculture and Marketing, Charlottetown, P.E.I.

Mr. Reid Sangster, Director of Marketing and ARDA Co-ordinator, Department of Agriculture and Conservation, Charlottetown, P.E.I.

Newfoundland

Hon. F. W. Rowe, Minister of Community and Social Development, St. John's, Newfoundland.

Mr. F. J. Evans, Rural Development Officer, Department of Community and Social Development, St. John's, Newfoundland.

Federal ARDA Administration

Hon. Maurice Sauvé, Minister of Forestry and Rural Development, Ottawa, Ontario.

Mr. André Saumier, Assistant Deputy Minister, Rural Development Branch, Department of Forestry and Rural Development, Ottawa, Ontario.



